

SEQUENCE LISTING

(1) GENERAL INFORMATION:

- 5 (i) APPLICANT: Rose, Keith
Offord, Robin
- (ii) TITLE OF INVENTION: POLYOXIMES AND THEIR PREPARATION
- (iii) NUMBER OF SEQUENCES: 31
- (iv) CORRESPONDENCE ADDRESS:
- 10 (A) ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
(B) STREET: 5 Palo Alto Square
(C) CITY: Palo Alto
(D) STATE: California
(E) COUNTRY: U.S.A.
(F) ZIP: 94036
- 15 (v) COMPUTER READABLE FORM:
- (A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.25
- 20 (vi) CURRENT APPLICATION DATA:
- (A) APPLICATION NUMBER: PCT SERIAL NUMBER NOT YET ASSIGNED
(B) FILING DATE: FILED HEREWITH
(C) CLASSIFICATION:
- 25 (viii) ATTORNEY/AGENT INFORMATION:
- (A) NAME: Torchia, Timothy E.
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(C) TELEX: 380816 CooleyPA

(2) INFORMATION FOR SEQ ID NO:1:

- 35 (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 40 (iii) HYPOTHETICAL: NO
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
Lys Leu Glu Glu Gln Arg Pro Glu Arg Val Lys Gly
1 5 10

45 (2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

5 (ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Ser Lys Leu Glu Glu Gln Arg Pro Glu Val Lys Gly

1

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(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 amino acids

15 (B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: NO

(ix) FEATURE:

20 (A) NAME/KEY: Modified-site

(B) LOCATION: 1

(D) OTHER INFORMATION: Aminooxyacetyl-Lys

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Lys Leu Glu Glu Gln Arg Pro Glu Arg Val Lys Gly

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(2) INFORMATION FOR SEQ ID NO:4:

(i) SEQUENCE CHARACTERISTICS:

30 (A) LENGTH: 12 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

35 (A) NAME/KEY: Modified-site

(B) LOCATION: 1

(D) OTHER INFORMATION: GXL-Lys

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Lys Leu Glu Glu Gln Arg Pro Glu Arg Val Lys Gly

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(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH: 9 amino acids

- (B) TYPE: amino acid
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- 5 (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION: AOA-Gly
- 10 (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 4
 - (D) OTHER INFORMATION: AOA-Lys
- 15 (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 5
 - (D) OTHER INFORMATION: AOA-Lys
- 20 (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 6
 - (D) OTHER INFORMATION: AOA-Lys
- 25 (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 7
 - (D) OTHER INFORMATION: AOA-Lys
- 30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:
 Gly Gly Gly Lys Lys Lys Lys Gly
 1 5
- (2) INFORMATION FOR SEQ ID NO:6:
- 35 (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 9 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 40 (iii) HYPOTHETICAL: NO
- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION: GXL-Gly
- 45 (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 4
- (D) OTHER INFORMATION: GXL-Lys
- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 5
 - (D) OTHER INFORMATION: GXL-Lys
- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 6
 - (D) OTHER INFORMATION: GXL-Lys
- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 7
 - (D) OTHER INFORMATION: GXL-Lys
- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 8
 - (D) OTHER INFORMATION: GXL-Lys
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:
Gly Gly Gly Lys Lys Lys Lys Lys Gly
1 5
- (2) INFORMATION FOR SEQ ID NO:7:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10 amino acids
 - (B) TYPE: amino acid
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: peptide
 - (iii) HYPOTHETICAL: NO
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 5
 - (D) OTHER INFORMATION: Serine-Lys
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 6
 - (D) OTHER INFORMATION: Serine-Lys
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 7
 - (D) OTHER INFORMATION: Serine-Lys
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site

(B) LOCATION: 8
(D) OTHER INFORMATION: Serine-Lys
(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 9
(D) OTHER INFORMATION: Serine-Lys
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:
Ser Gly Gly Gly Lys Lys Lys Lys Lys Gly
1 5 10
(2) INFORMATION FOR SEQ ID NO:8:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: peptide
(iii) HYPOTHETICAL: NO
(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: Bromoacetyl-Gly
(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 4
(D) OTHER INFORMATION: GXL-Lys
(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 5
(D) OTHER INFORMATION: GXL-Lys
(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 6
(D) OTHER INFORMATION: GXL-Lys
(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 7
(D) OTHER INFORMATION: GXL-Lys
(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 8
(D) OTHER INFORMATION: GXL-Lys

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Gly Gly Gly Lys Lys Lys Lys Lys Gly
1 5 10

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(2) INFORMATION FOR SEQ ID NO:9:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 amino acids

(B) TYPE: amino acid

10 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: NO

(ix) FEATURE:

(A) NAME/KEY: Modified-site

15 (B) LOCATION: 1

(D) OTHER INFORMATION: GXL-Gly

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 4

20 (D) OTHER INFORMATION: GXL-Lys

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 5

(D) OTHER INFORMATION: GXL-Lys

25 (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 6

(D) OTHER INFORMATION: GXL-Lys

(ix) FEATURE:

30 (A) NAME/KEY: Modified-site

(B) LOCATION: 7

(D) OTHER INFORMATION: GXL-Lys

(ix) FEATURE:

(A) NAME/KEY: Modified-site

35 (B) LOCATION: 8

(D) OTHER INFORMATION: GXL-Lys

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 9

40 (D) OTHER INFORMATION: GXL-Lys

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 10

(D) OTHER INFORMATION: GXL-Lys

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Gly Gly Gly Lys Lys Lys Lys Lys Lys Lys Gly
 1 5 10

5 (2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

10 (ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: NO

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 1

15 (D) OTHER INFORMATION: AOA-Glu

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Glu Leu Gly Gly Gly Pro Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu

1 5 10 15

Glu Gly Ser Leu Gln Lys Arg

20 20

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 6 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: NO

30 (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 4

(D) OTHER INFORMATION: GXL-Lys

(ix) FEATURE:

35 (A) NAME/KEY: Modified-site

(B) LOCATION: 5

(D) OTHER INFORMATION: GXL-Lys

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Gly Gly Gly Lys Lys Gly

40 1 5

(2) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH: 21 amino acids

(B) TYPE: amino acid
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: peptide
 (iii) HYPOTHETICAL: NO
 5 (ix) FEATURE:
 (A) NAME/KEY: Modified-site
 (B) LOCATION: 1
 (D) OTHER INFORMATION: AOA-Tyr
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:
 10 Tyr Arg Glu Asp Gly Val Thr Pro Tyr Met Ile Phe Phe Lys Asp Gly
 1 5 10 15
 Leu Glu Met Glu Lys
 20

15 (2) INFORMATION FOR SEQ ID NO:13:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 amino acids
 (B) TYPE: amino acid
 20 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: peptide
 (iii) HYPOTHETICAL: NO
 (ix) FEATURE:
 (A) NAME/KEY: Modified-site
 25 (B) LOCATION: 1
 (D) OTHER INFORMATION: AOA-Lys
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:
 Lys Leu Glu Gln Arg Pro Glu Arg Val Lys Gly
 1 5 10

30 (2) INFORMATION FOR SEQ ID NO:14:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 6 amino acids
 35 (B) TYPE: amino acid
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: peptide
 (iii) HYPOTHETICAL: YES
 (ix) FEATURE: ..
 40 (A) NAME/KEY: Modified-site
 (B) LOCATION: 3
 (D) OTHER INFORMATION: Any amino acid
 (ix) FEATURE:
 (A) NAME/KEY: Modified-site
 45 (B) LOCATION: 4

- (D) OTHER INFORMATION: Any amino acid
- (ix) FEATURE:
- (A) NAME/KEY: Modified-site
- (B) LOCATION: 5
- 5 (D) OTHER INFORMATION: Any amino acid
- (ix) FEATURE:
- (A) NAME/KEY: Modified-site
- (B) LOCATION: 6
- (D) OTHER INFORMATION: Any amino acid
- 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:
- Gly Gly Xaa Xaa Xaa Xaa
- 1 5
- 15 (2) INFORMATION FOR SEQ ID NO:15:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear
- 20 (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: YES
- (ix) FEATURE:
- (A) NAME/KEY: Modified-site
- (B) LOCATION: 3
- 25 (D) OTHER INFORMATION: Any amino acid
- (ix) FEATURE:
- (A) NAME/KEY: Modified-site
- (B) LOCATION: 4
- (D) OTHER INFORMATION: Any amino acid
- 30 (ix) FEATURE:
- (A) NAME/KEY: Modified-site
- (B) LOCATION: 5
- (D) OTHER INFORMATION: Any amino acid
- (ix) FEATURE:
- 35 (A) NAME/KEY: Modified-site
- (B) LOCATION: 6
- (D) OTHER INFORMATION: Any amino acid
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:
- Gly Ala Xaa Xaa Xaa Xaa
- 40 1 5
- (2) INFORMATION FOR SEQ ID NO:16:
- (i) SEQUENCE CHARACTERISTICS:
- 45 (A) LENGTH: 6 amino acids

(B) TYPE: amino acid
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: peptide
(iii) HYPOTHETICAL: YES
5 (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 3
(D) OTHER INFORMATION: Any amino acid
(ix) FEATURE:
10 (A) NAME/KEY: Modified-site
(B) LOCATION: 4
(D) OTHER INFORMATION: Any amino acid
(ix) FEATURE:
15 (A) NAME/KEY: Modified-site
(B) LOCATION: 5
(D) OTHER INFORMATION: Any amino acid
(ix) FEATURE:
20 (A) NAME/KEY: Modified-site
(B) LOCATION: 6
(D) OTHER INFORMATION: Any amino acid
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:
Arg Tyr Xaa Xaa Xaa Xaa
1 5
25
(2) INFORMATION FOR SEQ ID NO:17:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6 amino acids
(B) TYPE: amino acid
30 (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: peptide
(iii) HYPOTHETICAL: YES
(ix) FEATURE:
(A) NAME/KEY: Modified-site
35 (B) LOCATION: 5
(D) OTHER INFORMATION: Any amino acid
(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 6
40 (D) OTHER INFORMATION: Any amino acid
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:
Arg Tyr Gly Gly Xaa Xaa
1 5
45

(2) INFORMATION FOR SEQ ID NO:18:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: YES

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 5

(D) OTHER INFORMATION: Any amino acid

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 6

(D) OTHER INFORMATION: Any amino acid

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

Arg Tyr Gly Ala Xaa Xaa

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(2) INFORMATION FOR SEQ ID NO:19:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: YES

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 5

(D) OTHER INFORMATION: Any amino acid

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 6

(D) OTHER INFORMATION: Any amino acid

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

Arg Tyr Lys Glu Xaa Xaa

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(2) INFORMATION FOR SEQ ID NO:20:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide
 (ix) FEATURE:
 (A) NAME/KEY: Modified-site
 (B) LOCATION: 1
 5 (D) OTHER INFORMATION: Acetyl-Asp
 (ix) FEATURE:
 (A) NAME/KEY: Modified-site
 (B) LOCATION: 13
 (D) OTHER INFORMATION: His-amide
 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:
 Asp Cys Thr Leu Ile Asp Ala Leu Leu Gly Asp Pro His
 1 5 10

15 (2) INFORMATION FOR SEQ ID NO:21:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 amino acids
 (B) TYPE: amino acid
 (D) TOPOLOGY: linear
 20 (ii) MOLECULE TYPE: peptide
 (ix) FEATURE:
 (A) NAME/KEY: Modified-site
 (B) LOCATION: 1
 (D) OTHER INFORMATION: Acetyl-Asp
 25 (ix) FEATURE:
 (A) NAME/KEY: Modified-site
 (B) LOCATION: 2
 (D) OTHER INFORMATION: Cys (CH₂CONH-CH₂CH₂NH-COCH₂ONH₂) -
 (ix) FEATURE:
 30 (A) NAME/KEY: Modified-site
 (B) LOCATION: 13
 (D) OTHER INFORMATION: His-amide
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:
 Asp Cys Thr Leu Ile Asp Ala Leu Leu Gly Asp Pro His
 35 1 5 10

(2) INFORMATION FOR SEQ ID NO:22:
 (i) SEQUENCE CHARACTERISTICS:
 40 (A) LENGTH: 13 amino acids
 (B) TYPE: amino acid
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: peptide
 (ix) FEATURE:
 45 (A) NAME/KEY: Modified-site

(B) LOCATION: 1

(D) OTHER INFORMATION: AOA-Asp

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 13

(D) OTHER INFORMATION: His-amide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

Asp Cys Thr Leu Ile Asp Ala Leu Leu Gly Asp Pro His

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(2) INFORMATION FOR SEQ ID NO:23:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 1

(D) OTHER INFORMATION: AOA-Asp

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 2

(D) OTHER INFORMATION: Cys(S-2-pyridyl)

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 13

(D) OTHER INFORMATION: His-amide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

Asp Cys Thr Leu Ile Asp Ala Leu Leu Gly Asp Pro His

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(2) INFORMATION FOR SEQ ID NO:24:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: cyclic

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 1

(D) OTHER INFORMATION: Acetyl-Cys

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 10

(D) OTHER INFORMATION: Cys-amide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

5 Cys Lys Ala Lys Pro Gly Lys Ala Lys Cys

1 5 10

(2) INFORMATION FOR SEQ ID NO:25:

10 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr Gly Met

1 5 10 15

Arg Asn Val Pro Glu Lys Gln Thr

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(2) INFORMATION FOR SEQ ID NO:26:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 amino acids

25 (B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site

30 (B) LOCATION: 1

(D) OTHER INFORMATION: AOA-Pro

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr Gly Met
 1 5 10 15
 Arg Asn Val Pro Glu Lys Gln Thr
 20

(2) INFORMATION FOR SEQ ID NO:27:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 amino acids
 (B) TYPE: amino acid
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
 (B) LOCATION: 1
 (D) OTHER INFORMATION: Acetyl-Asp

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
 (B) LOCATION: 2
 (D) OTHER INFORMATION: Cys (CH₂CH₂CH₂NH-AOA)

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
 (B) LOCATION: 13
 (D) OTHER INFORMATION: His-amide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

Asp Cys Thr Leu Ile Asp Ala Leu Leu Gly Asp Pro His
 1 5 10

(2) INFORMATION FOR SEQ ID NO:28:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 amino acids
 (B) TYPE: amino acid
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
 (B) LOCATION: 1
 (D) OTHER INFORMATION: Acetyl-Asp

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
 (B) LOCATION: 2
 (D) OTHER INFORMATION: Cys(carboxamidomethyl)

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 13

(D) OTHER INFORMATION: His-NHCH₂CH₂NH-AOA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

Asp Cys Thr Leu Ile Asp Ala Leu Leu Gly Asp Pro His

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(2) INFORMATION FOR SEQ ID NO:29:

10 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

15 (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 1

(D) OTHER INFORMATION: Acetyl-Asp

(ix) FEATURE:

20 (A) NAME/KEY: Modified-site

(B) LOCATION: 13

(D) OTHER INFORMATION: His-NHCH₂CH₂NH-AOA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

Asp Cys Thr Leu Ile Asp Ala Leu Leu Gly Asp Pro His

25

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(2) INFORMATION FOR SEQ ID NO:30:

(i) SEQUENCE CHARACTERISTICS:

30 (A) LENGTH: 13 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

35 (A) NAME/KEY: Modified-site

(B) LOCATION: 1

(D) OTHER INFORMATION: Acetyl-Asp

(ix) FEATURE:

(A) NAME/KEY: Modified-site

40 (B) LOCATION: 2

(D) OTHER INFORMATION: Cys(S-CH₂CH₂NHCOCH₂ONH-Boc)

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 13

45

(D) OTHER INFORMATION: His-amide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

Asp Cys Thr Leu Ile Asp Ala Leu Leu Gly Asp Pro His

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(2) INFORMATION FOR SEQ ID NO:31:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4 amino acids

(B) TYPE: amino acid

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(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 1

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(D) OTHER INFORMATION: GXL-Lys(GXL)

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 2

(D) OTHER INFORMATION: Lys(GXL-Lys(GXL))

20

(ix) FEATURE:

(A) NAME/KEY:

(B) LOCATION:

(D) OTHER INFORMATION:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

25

Lys Lys Tyr

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